

WHAT IS CLAIMED IS:

1 1. A data-on-demand (DOD) broadcast method for transmitting a client generic
2 sequence of data blocks comprising the acts of:
3 preparing a client generic data transmission sequence of data blocks, wherein said
4 client generic data transmission sequence has a sub-optimal time delivery characteristic;
5 transmitting a data file consisting of said sequence of data blocks in accordance
6 with said sub-optimal transmission sequence to a plurality of clients in a non client
7 specific manner such that a receiving client may begin to access said data file within a
8 predetermined time period.

1 2. The method of claim 1, wherein said predetermined time period has a duration,
2 and wherein said duration is responsive to information included in at least one of said
3 sequence of data blocks.

1 3. The method as recited in claim 1, whereby transmission of said data file requires
2 an amount of transmission bandwidth that is independent of the number of said plurality
3 of clients.

1 4. A method as recited in claim 3, wherein the act of preparing said sub-optimal data
2 transmission sequence includes the acts of:

3 receiving a data file;
4 specifying a time interval;
5 parsing said data file into a plurality of data blocks based on said time interval
6 such that each data block is displayable during said time interval;
7 determining a required number of time slots to send said data file, wherein each of
8 said time slot has a duration substantially equal to said time interval;
9 allocating to each time slot at least one of said plurality of data blocks.
10

1 5. The method of claim 4, wherein a client may access said transmitted data file
2 within a predetermined number of said time slots.

6. A method as recited in claim 5, wherein said predetermined number of time slots is one.

7. A method as recited in claim 5, wherein said predetermined number of time slots is at least two.

8. The method of claim 5, wherein said number of time slots is indicative of a selected bandwidth.

9. The method of claim 1, including transmitting an electronic program guide (EPG), wherein said EPG enables a receiving client to select a desired data file for viewing.

10. The method of claim 9, wherein said EPG indicates a delay time for receiving a selected data file.

11. A method for receiving data files transmitted as a sub-optimal data block sequence, comprising the acts of:

- receiving a user input indicating at least one selected data file;
- storing at least one of a plurality of data blocks of said sub-optimal data block sequence in a memory location during a predetermined time period;
- displaying at least a first portion of said data file to a user after said predetermined time period has elapsed;
- receiving at least one additional data block of said plurality of data blocks of said sub-optimal data block sequence; and
- displaying at least a second portion of said data file to said user by combining at least one of said stored data blocks with said at least one additional data block.

12. The method of claim 11, wherein said at least one additional data block is also stored in a memory location.

1 13. The method of claim 11 further comprising determining a waiting time
2 necessary before playing said data file to assure that data blocks corresponding to said
3 data file are received before they are scheduled to be played.

1 20. The method of claim 19, wherein said waiting time is determined in response to
2 information contained in a packed header of at least one of said data blocks of said sub-
3 optimal sequence of data blocks.

1 14. An apparatus for retrieving data files broadcast repetitively over a plurality of
2 time slots as a sub-optimal sequence of data blocks comprising:

3 means for receiving a file request from a user selecting at least one of the
4 broadcast data files;

5 means for initiating an authorized file retrieval process to retrieve at least one data
6 block of said sequence of data blocks during a first time interval;

7 means for displaying a first portion of said data file after said first time interval;

8 means for retrieving remaining data blocks of said sub-optimal sequence of data
9 blocks; and

10 means for displaying a second portion of said data file using said at least one data
11 block retrieved during said first time interval in conjunction with at least one of said
12 remaining data blocks.

1 15. The apparatus of claim 14 further comprising means for requesting an
2 authorization for retrieval of the file requested.

1 16. The apparatus of claim 14 wherein an electronic program guide (EPG) is
2 received by a user set-top-box (STB) and presented to the user.

1 17. The apparatus of claim 16 wherein the user STB automatically determines a
2 download time and a play time from data transmitted with the EPG corresponding to the
3 file selection by the user and automatically displays at least a portion of said file after a
4 waiting period, said waiting period duration being responsive to said download time and
5 said play time.

1 18. The apparatus of claim 17 wherein the user STB automatically calculates a
2 waiting period duration responsive to said play time and said download time.

1 19. The apparatus of claim 18 wherein said waiting period is further responsive to
2 the number of data blocks comprising said file.

1 20. An apparatus for retrieving data files broadcast repetitively over a plurality of
2 time slots as a sub-optimal sequence of data blocks comprising:

3 an input device for receiving a file request from a user selecting at least one of the
4 broadcast data files;

5 a processor for initiating an authorized file retrieval process to retrieve at least one
6 data block of said sequence of data blocks during a first time interval;

7 a display device for displaying a first portion of said data file after said first time
8 interval;

9 a communications link for retrieving remaining data blocks of said sub-
10 optimal sequence of data blocks; wherein said display device is further operative to
11 display a second portion of said data file using said at least one data block retrieved
12 during said first time interval in conjunction with at least one of said remaining data
13 blocks.

1 21. The apparatus of claim 19 further comprising a communications port for
2 requesting an authorization for retrieval of the file requested.

1 22. The apparatus of claim 20 wherein an EPG is received by a user STB and
2 presented to the user.

1 23. The apparatus of claim 21 wherein the user STB automatically determines a
2 download time and a play time from data transmitted with the EPG corresponding to the
3 file selection by the user and automatically displays at least a portion of said file after a
4 waiting period, said waiting period duration being responsive to said download time and
5 said play time.

1 24. The apparatus of claim 22 wherein the user STB automatically calculates a
2 waiting period duration responsive to said play time and said download time.

1 25. The apparatus of claim 23 wherein said waiting period is further responsive to
2 the number of data blocks comprising said file.

1 26. A data on demand (DOD) broadcast system for transmitting a plurality of
2 data files, wherein each data file is transmitted as a sub-optimal sequence of data blocks,
3 comprising:

4 a DOD broadcast server for broadcasting a plurality of data files;

5 a transmission medium communicatively coupled with said DOD broadcast
6 server;

7 a plurality of receivers communicatively coupled with said DOD broadcast server
8 via said transmission medium;

9 wherein said DOD broadcast server repeatedly transmits a plurality of data files to
10 said plurality of receivers via said transmission medium;

11 wherein said receivers are operative to request authorization information
12 corresponding to a selected data file;

13 wherein said receivers are further operative to receive said authorization
14 information; and

15 wherein said receivers are further operative to display a portion of said selected
16 data file to a user after a predetermined time period, wherein said predetermined time
17 period enables said receivers to store a portion of said data file before beginning to
18 display said data file.

1 27. A set top box apparatus for accessing a DOD data file broadcast over a wide
2 area network as a sub-optimal sequence of data blocks, comprising;

3 an input device for receiving a file request from a user selecting at least one of the
4 broadcast data files;

5 a processor for initiating an authorized file retrieval process to retrieve at least one
6 data block of said sequence of data blocks during a first time interval;
7 a display device for displaying a first portion of said data file after said first time
8 interval;
9 a communications link for retrieving remaining data blocks of said sub-optimal
10 sequence of data blocks; wherein said display device is further operative to display a
11 second portion of said data file using said at least one data block retrieved during said
12 first time interval in conjunction with at least one of said remaining data blocks.

1 28. The apparatus of claim 26, wherein said processor is further operative to
2 automatically begin displaying said selected data file when a minimum portion of said
3 selected data file has been received.